

REMARKS

As a preliminary matter, Applicants appreciate the Examiner's allowance of claims 6, 13 and 23.

Claims 1-5, 7-12, 14-22 and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Mizokami et al. (U.S. Patent No. 5,523,991) in view of Okazaki (U.S. Patent No. 5,838,512). Applicants traverse the rejection because the cited references fail to disclose or suggest, among other things, a data reproducing unit or method conducting amplitude correction on the basis of a signal corresponding to the specific code train upon data reproduction, as featured in the independent claims.

Mizokami discloses a method of information recording and reproduction for accurately re-synchronizing in a region in which arbitrary information is to be recorded in an edge recording method by using run-length limited (RLL) data in an optical disk. In Mizokami, a RESYNC signal and a clock signal are reproduced on the basis of a RESYNC code. The code train is not stored in the buffer, and amplitude correction does not occur.

Okazaki has as an object to reliably reproduce servo data by reducing an error occurrence rate of servo data, and also improving the amplitude detecting accuracy of burst data. Okazaki teaches providing a special servo PLL circuit for servo data, and an amplitude correcting automatic gain control (AGC) circuit for reproducing both servo and host data. However, Okazaki fails to disclose or suggest a data reproducing unit that conducts amplitude correction on the basis of the phase information of the special code train holding the data. Indeed, Okazaki only achieves amplitude correction through an AGC circuit.

In contrast, the present invention separates a head reproducing signal by using clocks, and thereafter executes a clock extraction and amplitude correction by using a signal corresponding to a specific code train upon data reproduction. That is, the present invention conducts amplitude correction on the basis of the phase information of the special code train holding the data, unlike the cited prior art references, which correct amplitude through an AGC circuit.

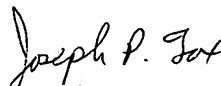
With respect to claims 15-16, Applicants believe that support for “user data” can be found on page 11, lines 22-24 of Applicants’ specification. Applicants traverse the rejection of these claims because the cited references fail to disclose or suggest, among other things, insertion of a predetermined specific code train into one or more portions of user data.

The Examiner cites Mizokami as teaching a data recording unit which inserts code train into at least one or more portions of user data (col. 2, lns. 38-50 and col. 7. lns. 3-14). However, Mizokami merely teaches a predetermined code train being inserted in the recorded information at predetermined regular intervals. In particular, a synchronization signal, such as one that is not included in a conversion rule of a run-length limited code, is adopted as the synchronization signal. However, Mizokami does not teach inserting the code train into user data, as in the present invention. For these reasons, withdrawal of the §103 rejection of claims 1-5, 7-12, 14-22, & 24 is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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